

FDL
CMT
B1
[april]
double ring coupler smoothly into a housing where it is locked into place with a coupler pin which falls, with the use of gravity, vertically downward through the part spherical housing and the double ring coupler.

Please delete the paragraph which appears at column 2, lines 37-45 of the specification, and replace it with the following paragraph:

SK
B2
Another object of the invention is to provide a hitch in accordance with the preceding objects in which the trailer hitch component consists of a double ring coupling assembly in which the outer ring moves three dimensionally about a fixed inner ring, and which also moves three dimensionally within a part spherical housing component, thus allowing maximum movement of the trailer tongue and towed trailer vertically and horizontally within a continuous plane in relation to the rear of the towing vehicle.

Please delete the paragraph which appears at column 2, lines 60-62 of the specification, and replace it with the following paragraph:

B3
FIG. 5 is a sectional view illustrating the engagement of the double ring coupler within the part spherical housing with the inner ring locked in place by the coupler pin.

Please delete the paragraph which appears at column 2, lines 63-67 of the specification, and replace it with the following paragraph:

B4
8/2
FIG. 6 is a perspective view illustrating the freedom of three dimensional movement of the double ring coupler shaft within the part spherical housing and about the inner ring, thus resulting in maximum horizontal, vertical and rotational movement of the trailer tongue and hence trailer

Please delete the section entitled "DESCRIPTION OF THE PREFERRED EMBODIMENT" which appears at column 3, line 1, through col. 4, line 21 of the specification, and replace it with the following replacement section:

B5
8/2
DESCRIPTION OF THE PREFERRED EMBODIMENT

The double ring hitch assembly is comprised of the coupler guide which is generally designated by reference 16, and the double ring coupler hitch, which is generally designated by reference 18. FIG. 1 is an exploded perspective view of the coupler guide 16 and the double ring coupler 18 and illustrates their structural relationship. The coupler guide 16 consists of a hollowed part spherical housing 6 having opposite entrance holes 8 being vertically aligned to allow for the insertion of a locking pin 12. [the] The locking pin 12 is shown as "T" shaped with a handle grip 10, but is not limited to this shape. It has a hole 14 at its base for insertion of a locking pin. Extruding horizontally from the part spherical housing 6 is a rectangular shaft 2 which inserts into the interior channel of a class 2 or class 3 towing vehicle

hitch. The coupler guide 16 has four guide walls 20, 22, 24 and 26 which converge rearwardly into a circular opening of the part spherical housing 6. The preferred embodiment shows the outer perimeter formed by these four guide walls 20, 22, 24 and 26 as rectangular in shape, but the present invention is not limited to said rectangular shape.

The double ring coupler hitch is illustrated in more detail in FIGS. 2, 3 and 4. It is comprised of an annulus shaped outer ring 30 whose exterior surface 34 [is spherically shaped, *i.e.*, with] has the same convex curvature as the interior concave curvature of the part spherical housing 6. The outer ring 30 has a circular hole 36 cut through its center so that the interior surface 38 of the outer ring 30 is also concavely curved as the section of a sphere. The inner ring 40 is also annulus shaped with a convexly curved outer surface 42 with the same [spherical] curvature as the convex inner surface 38 of the outer ring 30. The inner ring 40 has a hole 46 cut through its center for insertion of the coupler pin 10 between the hole 46 and the outer surface 42. The inner ring 40 has a level lip 44 on both sides. The inner ring 40 fits within the outer ring 30 as illustrated in FIGS. 2, 3 and 4. The concave inner surface 38 of the outer ring 30 covers the outer surface 42 of the inner ring 40 enough to prevent the inner ring 40 from being removed.

The outer ring 30 has a cylindrical shaft 32 which extends horizontally from its outer surface 34 into a hitch box 48. The hitch box 48 has drilled

holes for attachment to a trailer hitch tongue. The relative shapes of the inner ring 40 and outer ring 30 are structurally parallel such that the outer ring 30 can rotate about the inner ring 40 360 degrees about any axis, vertical, horizontal or continuously in between.

When mounted to the rear of a towing vehicle, the coupler guide 16 extends perpendicularly from the rear of the towing vehicle which is slowly backed toward the towed vehicle. The double ring coupler assembly 18 extends perpendicularly from the front of the towed vehicle. When the outer ring 30 comes in contact with the inside of one of the four coupler guide walls 20, 22, 24 or 26, the double ring coupler 18 is guided along the inside of the coupler guide walls 20, 22, 24 and 26 which converge and guide the double ring coupler 18 into the part spherical housing 6. Once engaged, the coupler pin 10 falls through the hole 8 in the part spherical housing 6 and through the hole 46 of the inner ring 40. The inner ring 40 is then locked in place except that it may rotate in either direction about the vertical axis of the locking pin 10. Once so engaged and locked, FIG. 6 illustrates the operational association between the double ring hitch 18 and the coupler guide 16. With the locking pin 10 in place, the double ring hitch 18 is allowed to rotate three dimensionally about the inner ring 40 and within the part spherical housing 6 continuously anywhere within the physical boundaries defined by the coupler guide walls 20, 22, 24 and 26. The relative shapes of the inner ring 40, the